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Background Document
For Proposed Amendments To

310 CMR 50.00

Toxics Use Reduction

Regulatory Authority:
M.G.L. Chapter 21I, §§ 3, 10, 11, and 12

June 27, 2007

I. INTRODUCTION

The Massachusetts Department of Environmental Protection (MassDEP) is proposing to amend the Toxics Use Reduction regulations, 310 CMR 50.00, to implement statutory amendments to the Toxics Use Reduction Act ("TURA," M.G.L. c. 21I) enacted in July 2006. The proposed regulatory revisions are the second of two sets of revisions and will implement new options for implementing environmental management systems (EMSs) and resource conservation plans for the 2008 TURA planning cycle for facilities that have completed a toxics use reduction plan and two updates. MassDEP is developing guidance documents on EMSs and resource conservation planning that will support implementation of these regulations. The first set of regulation revisions addressed statutory changes affecting reporting requirements and was promulgated in June 2007.

II. BACKGROUND

TURA was originally enacted in 1989 and requires certain facilities to report their use of toxic chemicals and examine ways to decrease their use of toxic chemicals and wastes generated, with the goal of protecting public health, the environment, and workers, while helping businesses to become more competitive.

TURA committed Massachusetts to reduce toxic byproducts (or wastes) by 50%, a goal that it met in 1998. The highly successful TURA program has helped Massachusetts businesses reduce toxics use by 41% and toxic byproducts by 65%[1], thereby also reducing chemical transportation risks, workplace hazards, and toxics in products, while helping Massachusetts businesses remain competitive in a global marketplace increasingly aware of toxics issues.

While TURA's primary goal was met several years ago, program stakeholders agreed that additional opportunities for environmental benefits exist and that the program should be updated and improved in light of the experience gained from TURA over its 15-year history. On July 28, 2006, "An Act Amending the Toxics Use Reduction Act" (Chapter 188 of the Acts of 2006) was signed into law, representing the first major overhaul of the statute since it was enacted.

The 2006 TURA amendments build on the program's success by focusing attention on reducing the use of higher hazard chemicals, encouraging businesses to increase environmental performance through environmental management systems and resource conservation plans, and streamlining reporting and planning requirements.

MassDEP is working with its TURA program partners – the Office of Technical Assistance and Technology (OTA) and the Toxics Use Reduction Institute (TURI) – to begin implementing the 2006 TURA amendments, including these proposed revisions.

[1] Measured using 2004 data normalized for changes in production reported by a core group of industries that have been subject to reporting since 1990.

III. DESCRIPTION OF THE PROPOSED AMENDMENTS

The statutory amendments allow TURA facilities that have completed a toxics use reduction (TUR) plan and two plan updates to then choose to develop a resource conservation plan or to implement an environmental management system in lieu of a TUR plan. The proposed regulation revisions implement these changes and include several changes to TUR planning requirements and TUR planner certification requirements.

A. Environmental Management Systems (310 CMR 50.80)

The 2006 statutory amendments allow facilities that have completed a TUR plan and two plan updates to implement an environmental management system (EMS) that integrates toxics use reduction planning in lieu of completing future TUR plan updates. This option allows companies that have established an EMS to integrate TUR planning into this more comprehensive system without having to continue to prepare separate TUR plan updates.

In the TURA statute and regulations, an environmental management system (EMS) is defined as " a quality-based management system that effectively integrates environmental considerations into an organization's day-to-day operations and management culture. In order to be eligible to be an alternative to toxic use reduction planning, the environmental management system shall, at a minimum, meet the following criteria: (a) include all production units that use TURA-listed chemicals used in reportable quantities as part of the environmental management system; (b) identify all TURA-listed chemicals used in reportable quantities as significant environmental aspects[2]; (c) consider toxics use reduction when identifying significant environmental aspects and developing associated objectives and targets; (d) emphasize source reduction in achieving objectives; and (e) incorporate appropriate environmental performance metrics when developing objectives and targets."

As a general matter, an EMS will be considered suitable if it is developed in accordance with established standards such as ISO 14001, U.S. EPA's Performance Track program or any other standard deemed satisfactory by MassDEP. However, to be acceptable as a substitute for a TUR plan, the EMS also must address all production units and covered toxics identified in the facility's most recent toxics use report. The EMS also must consider toxics use reduction in establishing objectives and targets. To qualify under TURA, the EMS must have been in place for at least one planning cycle (i.e., plan-do-check-act) and have undergone an independent EMS audit prior to the applicable planning year deadline.

The proposed regulation revisions establish 14 required elements that an EMS must include to qualify as an EMS that is acceptable to replace continued TUR plan updates. These required elements are generally similar to ISO 14001 standards, but emphasize integrating toxics use reduction planning into the EMS.

[2] An environmental aspect is a term commonly used in EMSs and refers to an element of a facility's products, activities, or services that can interact with the environment, such as, but not limited to, use of toxic chemicals, solid waste disposal, hazardous waste generation, industrial processes that produce air emissions, facility maintenance, etc.

If a facility elects to implement an EMS under TURA, the facility must submit an EMS progress report to MassDEP by July 1 of the applicable planning year and every two years thereafter. This report should briefly describe the significant environmental aspects and impacts to be addressed, objectives and targets, measures to be taken to incorporate source reduction in compliance and other activities, progress made towards achieving objectives and targets, an explanation of why progress was not achieved (if applicable), and steps the facility has taken or will take to ensure that facility operations conform to the EMS.

The EMS progress reports must be certified by a senior management official at the facility and by either a qualified EMS professional or a TUR planner who has training in EMSs (please see section C below).

An EMS professional may certify EMSs for any facility if he or she has completed sixteen hours of TUR training, as approved by MassDEP. An EMS professional seeking only to certify an EMS for a facility owned or operated by his or her employer must have either sixteen hours of TUR training or two years of TUR experience (TUR training is not required). Beyond these initial requirements, EMS professionals must complete and maintain documentation of sixteen hours of continuing education in toxics use reduction every six-year period.

Prior to the TURA statutory amendments, MassDEP encouraged EMSs at TURA and other facilities as a way to improve compliance. When inspecting a facility with an EMS, MassDEP has focused on compliance issues as an indirect measure of the effectiveness of the EMS, but generally has not directly assessed the quality of the EMS. With the TURA amendments and proposed regulations, including criteria for what constitutes an acceptable EMS under TURA, MassDEP now has the responsibility to assess the quality of these EMSs. If MassDEP identifies an EMS developed pursuant to 310 CMR 50.80 that does not meet the minimum criteria in the regulations, MassDEP can take enforcement action. MassDEP recognizes that an EMS is facility-specific and includes business practices and systems that go beyond environmental compliance issues. Under the proposed regulations MassDEP has flexibility in addressing an EMS that, while meeting the literal requirements of 310 CMR 50.80, does not appear to be effective as evidenced by non-compliance with other MassDEP regulations or permit conditions. In these cases, in addition to requiring compliance with other regulations or permit conditions, MassDEP may require the toxics user to:

a. provide information on the apparent deficiencies in the EMS,
b. modify the EMS to prevent future problems, and/or
c. audit the EMS.

B. Resource Conservation Plans (310 CMR 50.90)

In addition to the EMS option, a toxics user who has completed a TUR plan and two plan updates may choose to prepare a resource conservation plan in lieu of a TUR plan, for alternate planning cycles. The resource conservation planning option may be beneficial for facilities that have minimal remaining TUR opportunities under TURA, but that may have substantial opportunities to reduce use of energy, water, materials contributing to solid waste, or other toxics not covered under TURA and, thereby, become more efficient and competitive businesses. After

the resource conservation plan has been completed, the toxics user must file a resource conservation plan summary with MassDEP by July 1 of the planning year. It must then complete a toxics use reduction plan update in the following planning year (which are always even-numbered calendar years), coupled with a progress report on implementation of the resource conservation plan. After developing that toxics use reduction plan update, the toxics user can return to resource conservation planning in the next planning cycle. For example, if a facility implements a resource conservation plan for the July 2008 planning deadline, it must complete a TUR plan update for the July 2010 cycle. Then, the facility has the option of implementing a second resource conservation plan for July 2012.

"Resource Conservation" is defined in the TURA statute and in the TUR regulations as "an action that decreases the use or consumption of a natural asset such as water, energy, or raw materials, or increases the efficiency of the use of the asset, without increasing the amount of waste generated."

A facility electing to complete a resource conservation plan under TURA must select at least one "natural asset" as the focus of the resource conservation plan. The proposed revisions establish six natural assets:

- Water use;
- Energy use;
- Toxic substances used below threshold amounts as defined in 310 CMR 50.10;
- Chemical substances that are not identified on the list of toxic or hazardous substances;
- Toxic substances present in articles;
- Other materials and products that contribute to solid waste.

A senior management official and a TUR planner who has had training in resource conservation must certify a resource conservation plan.

In the proposed revisions, toxics users who develop a resource conservation plan follow a process very similar to developing a toxics use reduction plan. This process includes notifying and soliciting from employees ideas about resource conservation opportunities and options, including facility-wide information in the plan (e.g., a management policy regarding resource conservation, how the asset is used, opportunities for reducing use, etc.) and more focused, detailed information (e.g., process flow diagram, identification of options, technical and economic evaluation, goals for reducing use, etc.).

C. Planner Certification Requirements (310 CMR 50.62 and 50.63)

The proposed revisions establish training and certification requirements that TUR planners must meet to able to certify an EMS or resource conservation plan.

A general practice TUR planner may certify an EMS if he or she has completed 16 continuing education credits in EMS, as approved by MassDEP. A limited practice TUR planner may either have completed 16 continuing education credits in EMS or demonstrate at least two years experience in implementing and auditing environmental management systems. EMS training

credits may count towards the total number of credits required for TUR planner recertification, as long as they were taken within the applicable recertification period. An EMS under TURA also may be certified by an EMS professional who has received training in toxics use reduction (see Section A above).

To certify a resource conservation plan, a TUR planner must initially complete 12 credits in resource conservation planning, including at least six credits in applying toxics use reduction planning methods to resource conservation planning. These credits also would count towards the number of credits that the TUR planner must obtain for recertification. To continue to be able to certify resource conservation plans, every four years after that, a TUR planner must complete at least nine credits in resource conservation planning, including three each in energy conservation, water conservation, and solid waste reduction. A certified TUR planner would not need specific credits for resource conservation plans focusing on reducing toxics that otherwise are not subject to toxics use reduction plans (i.e., do not exceed reporting thresholds, are not on the TURA chemical list).

D. Toxics Use Reduction Planning Changes

The revisions also incorporate various statutory changes to TUR planning requirements, including deleting the requirement to provide two- and five-year projections for use and byproduct, and reporting of the byproduct reduction index (BRI) and emissions reduction index (ERI). In lieu of reporting BRIs and ERIs, toxics users must report toxics use reduction techniques considered and techniques selected to be implemented on the plan summary form. These changes address statutory changes while ensuring that toxics users still provide useful information on the plan summary form.

The 2006 statutory changes deleted language regarding deficient plans and plan updates, and the proposed revisions delete the corresponding language from the regulations.

E. Other Amendments

The proposed revisions add and/or revise a number of definitions based on the 2006 statutory amendments.

New or revised definitions include “environmental impact”, “environmental aspect”, “Environmental Management System Professional”, “Independent Auditor”, “Natural asset”, “Operation”, and “Resource Conservation Plan”. The proposed revisions delete the existing definition of “plan update” and replace it with a definition of “plan” that includes both toxics use reduction plans and plan updates.

Section 50.49, Deficient Toxics Use Reduction Plans, has been deleted because the associated statutory language (Chapter 21I, Section 12(H)) was deleted in the statutory amendments. This change has no effect on MassDEP’s enforcement authority under TURA.

IV. Impacts of Proposed Revisions

A. Economic Impacts

The new planning options allow toxics users to implement alternative plans that focus on either toxics or natural resources not previously covered under TURA. Building on the successful model and process of TUR planning, the new planning options will enable toxics users to identify and implement cost-effective environmental improvements in situations when they may not be able to gain further benefit from toxics use reduction planning. As with TUR planning, facilities will not be required to implement initiatives that they identify, although experience has shown that facilities are likely to implement improvements that are determined to be technically practicable and cost-effective. The regulatory revisions will enable facilities to plan for improvements in facility operations that will reduce use of energy, water, materials, and toxic chemicals not previously addressed in TURA planning and become more efficient and more competitive.

B. Agricultural Impacts

Pursuant to M.G.L. c. 30A, Section 18, State agencies must evaluate the impact of proposed programs on agricultural resources within the Commonwealth. The proposed revisions are intended to promote resource conservation and environmental protection. Therefore, this proposal is likely to have a positive impact on agricultural production and the resources available for that production.

C. Impacts on Municipalities

Pursuant to Executive Order 145, state agencies must assess the fiscal impact of new regulations on the Commonwealth's municipalities. Municipalities are statutorily exempt from TURA and therefore the proposed amendments will have no direct effect on them. However, municipalities are likely to benefit from reduced pollution and associated risks to the extent the proposed amendments reduce the use of toxic substances or improve environmental performance of toxics users in their jurisdictions. In addition, implementation of resource conservation plans may help to reduce the use of energy, water, and other materials in municipalities where those facilities are located.

D. MEPA

These regulations implement 2006 statutory amendments to M.G.L. c. 21I that already are in effect. MEPA review is not intended for regulatory revisions that are consistent with statutory revisions recently passed by the Legislature and signed by the Governor. The MEPA process would be duplicative of the process the statutory amendments just went through. As such, the proposed regulatory revisions are not subject to MEPA under the "Regulations Governing the Preparation of Environmental Impact Reports," 301 CMR 11.00.

V. PUBLIC PARTICIPATION

As provided by state law, MassDEP gives notice and provides the opportunity to review the proposed revisions to 310 CMR 50.00 and the accompanying background document, at least 21 days prior to holding a public hearing. The hearing and public comment period will be held in accordance with the procedures of M.G.L. Chapter 30A. A copy of the proposed revisions and this background document are available on the MassDEP web site at www.mass.gov/dep/service/regulations/newregs.htm#proposed.